

- 23 -

**Claims:**

1. An isolated polynucleotide molecule comprising a nucleic acid sequence which encodes an gNK1r polypeptide
- 5 2. An isolated polynucleotide molecule comprising a nucleic acid sequence which encodes a polypeptide having at least 98% sequence identity to the amino acid sequence disclosed in SEQ ID NO:2.
- 10 3. The isolated polynucleotide according to either of claims 1 or 2, which sequence comprises the sequence set out in SEQ ID NO:1.
4. An expression vector comprising a polynucleotide molecule according to any of claims 1, 2 or 3.
- 15 5. A host cell transformed or transfected with the expression vector according to claim 4.
6. The host cell according to claim 5, which is a mammalian cell.
- 20 7. A method for producing a polypeptide, which method comprises culturing a host cell comprising a polynucleotide as claimed in any of claims 1 to 3, under conditions suitable for the expression of said polypeptide.
- 25 8. An isolated or purified polypeptide comprising the gNK1r amino acid sequence set out in SEQ ID NO:2 or a variant of SEQ ID NO:2 having at least 98% identity thereto, or an N- terminal or C-terminal fragment thereof of at least 350 amino acids in length.
9. An isolated gNK1r polypeptide selected from the group consisting of:  
30 SEQ ID NO: 2 or a fragment thereof selected from SEQ ID NO:2 positions: 1-377, 1-387, 1-400, 1-406, 10-407, 15-407, 20-407, 25-407, 35-407, 40-390, 15-385, 20-380, 25-370, 30-370 and 25-400.
- 35 10. The variant polypeptide according to claim 8, which variant possesses, relative to the position in SEQ ID NO:2, a serine at position 80, a valine at position 116 and an isoleucine at position 290.

- 24 -

11. A method for identifying a chemical compound capable of modulating the activity of gNK1r which method comprises:

- (i) contacting a chemical compound with an gNK1r polypeptide according to claim 8; and
- (ii) measuring an effect of the chemical compound on the activity of the gNK1r polypeptide.

5

12. A method for identifying a therapeutic agent capable of modulating the activity of gNK1r, which method comprises:

- (i) contacting a candidate compound modulator with an gNK1r polypeptide comprising the amino acid sequence set out in SEQ ID NO.2 or a variant of SEQ ID NO.2 having at least 10 98% sequence identity thereto, or an N- terminal or C-terminal fragment thereof of at least 377 amino acids in length; and
- (ii) measuring an effect of the candidate compound modulator on the activity of the gNK1r polypeptide.

15 13. A method for identifying a therapeutic agent capable of modulating the activity of gNK1r, which method comprises:

- (i) contacting a candidate compound modulator with a host-cell which expresses an gNK1r polypeptide comprising the amino acid sequence set out in SEQ ID NO.2 or a variant of SEQ ID NO.2 having at least 98% identity thereto, or a biologically active fragment thereof; and
- 20 (ii) measuring an effect of the candidate compound modulator on the activity of gNK1r.

14. A method of making a pharmaceutical composition which comprises:

- (i) identifying a chemical compound capable of modulating the activity of gNK1r; and
- (ii) mixing the compound thus identified with a pharmaceutically acceptable diluent or carrier.

25

15. A pharmaceutical composition which comprises a gNK1r modulator, or a pharmaceutically acceptable salt thereof, in association with a pharmaceutically acceptable diluent or carrier.

30